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Volume 5, number 12 December 1984

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Please send all submissions
and direct all questions to
Elizabeth Page, Alberta Research
Council, 7th Floor, Terrace Plaza,
4445 Calgary Trail South,
Edmonton, Alberta T6H 5R7

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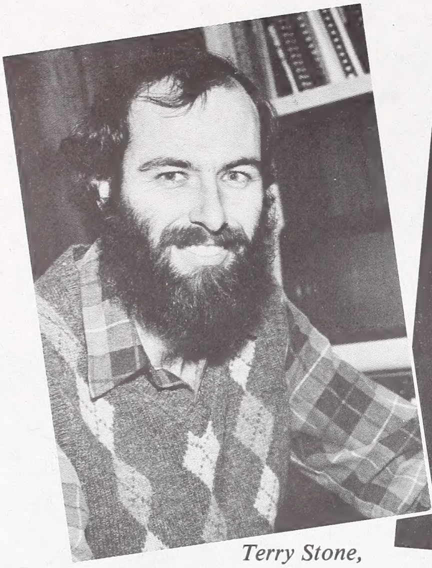
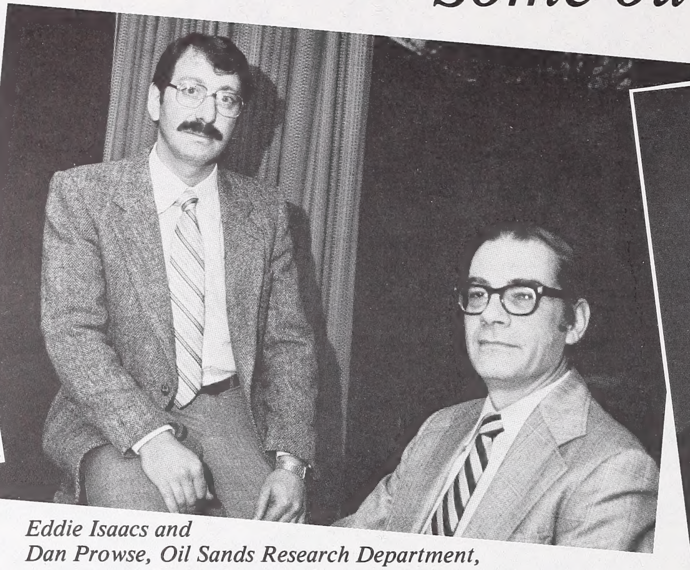
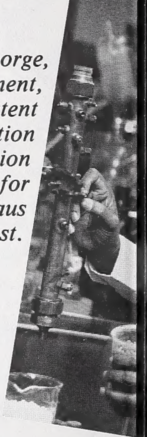
Some outstandi



Terry Stone, Oil Sands Research Department, received his Ph.D. in nuclear engineering from McMaster University.

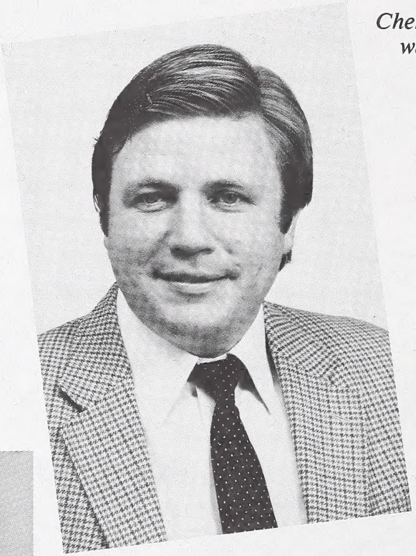


Eddie Isaacs and Dan Prowse, Oil Sands Research Department, were awarded a U.S. patent for Use of Surfactants to Improve Oil Recovery During Steam Flooding.

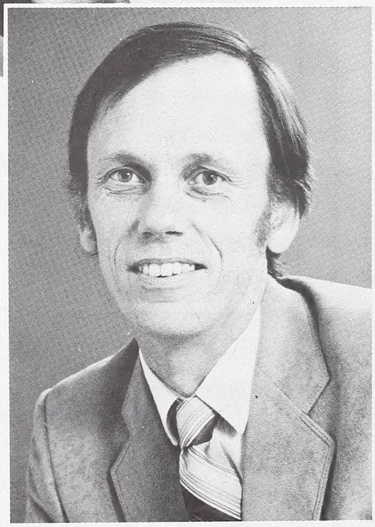


Zac George, Chemistry Department, was granted a patent for his invention of a regeneration process for poisoned Claus catalyst.

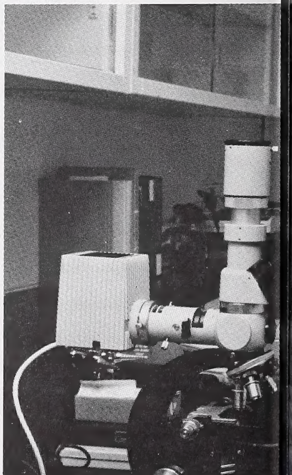
Petre Toma, Oil Sands Research Department, shared in the invention of a unique solids control device, for which he was granted a U.S. patent.



Peter Roaf, Public Relations unit, earned his accreditation from the International Association of Business Communicators.



Tom Christison, Civil Engineering Department, took the Roads and Transportation Association of Canada president's medal for the outstanding paper in research.



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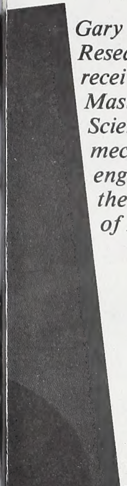
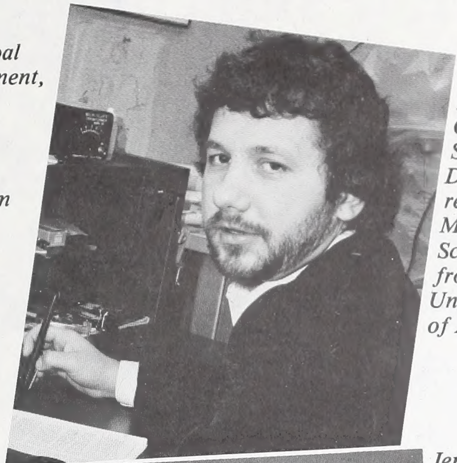
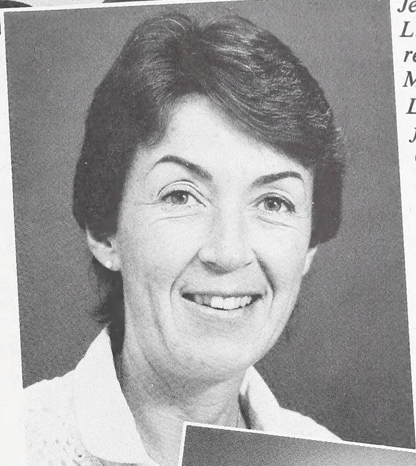


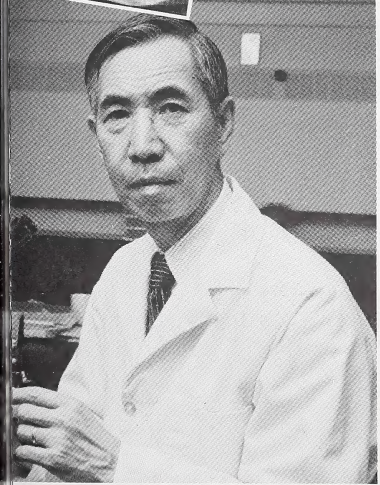
Gary Kovacik, Coal Research Department, received his Master of Science in mechanical engineering from the University of Alberta.



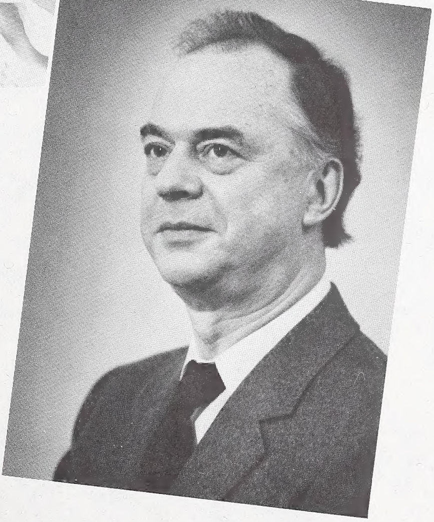
John Nurkowski, Geological Survey Department, received his Master of Science degree from the University of Alberta.



Jennifer Fullen, Library Services, received a Master of Library Science from the University of Alberta.



Kaneda, Biotechnology Department, amed Research Fellow of the Alberta rch Council.



Brian Hitchon, Research Fellow, is the editor-in-chief of a new applied geochemistry journal to be published by Pergamon Press, Oxford, England, as the official journal for the International Association of Geochemistry and Cosmochemistry.

A 25-year milestone

Brian Shields takes quiet pride in the accomplishments of the Civil Engineering Department.

As department head since its inception 25 years ago, he says "we don't take a back seat to anybody. Some of our programs have achieved national and international recognition."

He lists some of them: pavement and design evaluation - development work by the Research Council which has now involved the department in a national study; river engineering and the major contribution to design guides now circulated internationally; a study of ice forces on river bridges, unique in North America and "a sterling example of cooperative long term research with large government departments."

Brian Shields came to the Research Council in 1959 as senior engineer to head a Research Council/Department of Highways/University of Alberta joint highways project. He credits Dr. Robert M. Hardy, recently retired from the Research Council's Board of Directors, with initiating the concept.

The Research Council provided the staff, the Department of Highways supplied the projects and part of the funding, and the university provided office and laboratory facilities and graduate students to work on the assignments. The work was primarily contract research and in time highway engineering expanded to include surface water engineering for Alberta Environment. Transportation and Environment are still major clients and within the Research Council, the department works closely with the Natural Resources Division.

"The Civil Engineering Department began as an independent section - we didn't belong to a branch," says Brian. "Now we are part of an operating division but we have maintained our special client relationships within the ongoing cooperative research programs."

He believes the Civil Engineering Department is a credit to the Research Council, having shown the way for cooperation with the university and government departments where projects are jointly envisaged and developed.

"We've eschewed pure research, and concentrated on solving problems with good applied research," he says. "And

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Brian Shields

it all started with a perceived provincial need."

Brian has earned recognition for his own contribution. In 1975 and again in 1982, he received the president's medal from the Roads and Transportation Association of Canada for best technical (research) paper.

He holds a B.Sc. in Civil Engineering from the University of Manitoba and a M.Sc. in geotechnical engineering from the University of Alberta. Before joining the Research Council he was senior airfields design engineer with the federal Department of Transport in Ottawa.

Today he laments that there isn't time to write papers - "the real enjoyment is in the technical side" - but he draws considerable satisfaction from the performance of his staff.

"I see solid accomplishments by people in the department, and we have 26 projects with a healthy mix of field, laboratory and analytical work."

Asked to sum up the past 25 years, Brian thoughtfully puffs on his pipe and says, "it is very satisfying and intellectually rewarding to work in an organization like the Research Council."

Staff Meeting

Place: Mill Woods - West High Head Lab.
Time: December 20 at 9 a.m.

In addition to the traditional meeting, there will be an opportunity to tour the construction site, so come prepared with sensible footwear.

P.S. We'll have coffee and doughnuts, too.

Dr. John Dillon draws overflow audience

The deficiencies of natural and social environments faced by farmers in developing countries will never be overcome without adequate investment in agricultural research, says one of the world's foremost agricultural economists.

Dr. John Dillon, University of New England, Australia, told an audience of 350 people at the Nathaniel H. Grace 75th Anniversary Lectureship last month that such research requires strong and purposeful investments over decades in the development of both scientific manpower and physical facilities.

The goal of developing countries for the foreseeable future should be to enhance their food self-sufficiency as strongly as possible, Dr. Dillon said.

"To the extent that they are not self-sufficient, the developing countries must import food commercially or receive food aid if their people are not to go hungry. Imports, however, cost scarce foreign exchange and reduce funds available for longer-term investment, including the improvement of agricultural productivity ... the administrative cost (of food aid) is very high and can also act as a disincentive to local production."

In the context of agriculture itself, Dr. Dillon sees three impediments to self-sufficiency: inappropriate agricultural policies which exploit the traditional agricultural sector through artificially low food prices; the inadequacy of the necessary infrastructure in transport, storage, communication, input distribution and irrigation; and a humble agricultural technology with consequent low productivity.

"This reflects an inadequate and ineffectual investment in the agricultural research necessary for the development of improved farming systems and agricultural institutions ... such research is a continuing task requiring patient and persistent effort. It requires strong and purposeful investment over decades in the development of both scientific manpower and physical facilities."

Furthermore, Dr. Dillon said, "only with such continuing investment will it be possible to establish the scientific base from which, over the long term, an ongoing flow of new technology can be generated for farming system improvement."

Acknowledging the increasingly high cost of agricultural research, limited budgets in developing countries, lack of a scientific base of qualified manpower, and the difficulty in sustaining continuing investment when there are no immediate payoffs, Dr. Dillon said "what is needed in the developing countries is a research approach and institutional framework for research which brings the farmer to the fore - what is known as the farming systems approach."

Such an approach is holistic in philosophy, multidisciplinary in nature, and emphasizes understanding of the resource-poor Third World farmer's aspirations, his preferences, his environment and the constraints under which he has to operate.

The world food situation, with the exception of Africa, is significantly better today than it was 30 years ago, Dr. Dillon observed. He concluded that the development of a farmer-first-and-last approach to agriculture offers the best hope yet in meeting the challenge of Third World hunger.

Employee changes

We welcome to the Research Council:

Girgory Frakman and **Sandra Kenefick**, Research Technologists, Coal Research; **Dale Margel**, Junior Research Officer, Coal Research; **Ronald Strivens**, Machinist, Material and Testing; **Lloyd White**, Assistant Research Officer, Computing; **Brian Young**, Manager, Electronic Products Test Center.

We wish the following well in new endeavours: **Steve Butel**, Coal Research, and **Barry Galbraith**, Oil Sands Research.

Next holidays: December 25 and 26. December 24 is designated as the provincial government "floater".

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